

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference WO-02959	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 00/ 06227	International filing date (day/month/year) 14/06/2000	(Earliest) Priority Date (day/month/year) 14/06/1999
Applicant DSM N. V.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☒ contained in the international application in written form.

☒ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of Invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 00/06227

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/53 C12N15/52 C12N9/02 C12N9/04 C12P19/62

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12P C07H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, STRAND, EMBL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>APARICIO ET AL.: "The biosynthetic gene cluster for the 26-membered ring polyene macrolide pimaricin. A new polyketide synthase organization encoded by two subclusters separated by functionalization genes"</p> <p>JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 274, no. 15, 9 April 1999 (1999-04-09), pages 10133-10139, XP002120719 page 10134, column 2; figure 2 page 10137, column 2</p> <p>---</p> <p>-/--</p>	1-13, 15-27

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

27 October 2000

Date of mailing of the international search report

08/11/2000

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP 00/06227

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 95 01098 A (MONSANTO CO) 12 January 1995 (1995-01-12)</p> <p>page 15, line 25 -page 16, line 29 page 16, line 15 - line 29 page 19, line 23 -page 24, line 31 seq id no 8 page 30 -page 32 table 3</p> <p>---</p>	1-6, 12, 13, 15, 17, 20, 21, 23-27
X	<p>US 5 672 497 A (COX KAREN L ET AL) 30 September 1997 (1997-09-30)</p> <p>column 9, line 35 - line 64; figure 1; table 11</p> <p>---</p>	1-7, 9, 10, 12, 13, 15-17, 19-21, 23-27
A	<p>WO 98 11230 A (SQUIBB BRISTOL MYERS CO) 19 March 1998 (1998-03-19) seq id no 22 page 25, line 9 -page 27, line 30; claims 1-27; table 1</p> <p>---</p>	1-27
P, X	<p>BRAUTASET ET AL: "Biosynthesis of the polyene antifungal antibiotic nystatin in Streptomyces noursei ATCC 11455: analysis of the gene cluster and deduction of the biosynthetic pathway" CHEMISTRY AND BIOLOGY, vol. 7, no. 6, 23 May 2000 (2000-05-23), pages 395-403, XP000953274 nysL page 401 -page 402; figure 4; table 2 -& DATABASE EMBL 'Online! EBI; ACC.NO.:AF263912, 25 May 2000 (2000-05-25) BRAUTASET ET AL.: "Streptomyces noursei ATCC 11455 nystatin biosynthetic gene cluster, complete sequence" XP002151299 nysL abstract</p> <p>-----</p>	1-6, 12, 13, 24-27

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 00/06227

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9501098	A	12-01-1995	US 5518908 A	21-05-1996
			AT 147231 T	15-01-1997
			AU 686200 B	05-02-1998
			AU 7214094 A	24-01-1995
			BR 9406965 A	27-08-1996
			CA 2163120 A	12-01-1995
			CN 1126423 A	10-07-1996
			DE 69401436 D	20-02-1997
			DE 69401436 T	26-06-1997
			DK 706320 T	07-07-1997
			EP 0706320 A	17-04-1996
			ES 2097656 T	01-04-1997
			GR 3023050 T	30-07-1997
			HU 73324 A	29-07-1996
			JP 9500528 T	21-01-1997
			NZ 268794 A	27-08-1996
			PL 312277 A	15-04-1996
			US 5554369 A	10-09-1996
			US 5558862 A	24-09-1996
			US 5763245 A	09-06-1998
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US 5672497	A	30-09-1997	AT 116364 T	15-01-1995
			AU 603088 B	08-11-1990
			AU 7040587 A	24-09-1987
			BG 60053 A	16-08-1993
			CN 87102137 A	04-11-1987
			DE 3750907 D	09-02-1995
			DE 3750907 T	18-05-1995
			DK 135787 A	22-09-1987
			EP 0238323 A	23-09-1987
			ES 2067443 T	01-04-1995
			GR 3015151 T	31-05-1995
			HU 43631 A, B	30-11-1987
			IE 65709 B	15-11-1995
			IL 81892 A	31-10-1995
			JP 2674998 B	12-11-1997
			JP 62275686 A	30-11-1987
			KR 9206350 B	03-08-1992
			NZ 219694 A	29-01-1992
			NZ 232685 A	29-01-1992
			PT 84489 A, B	01-04-1987
			RU 2043416 C	10-09-1995
			ZA 8701862 A	26-10-1988
<hr/>				
WO 9811230	A	19-03-1998	NONE	
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